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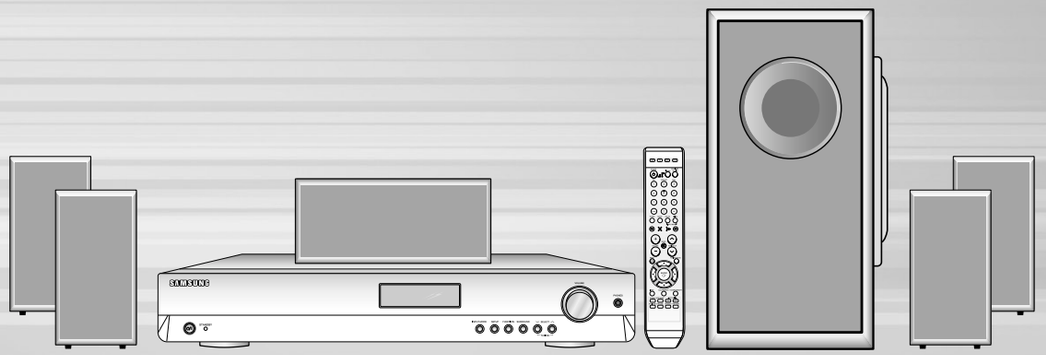
AH68-01853R

Digital Surround AV Receiver System

HT-AS610

Instruction Manual



Safety Warnings

CAUTION
RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE REAR COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Note to CATV system installer :
This reminder is provided to call the CATV system installer's attention to Section 820~40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical

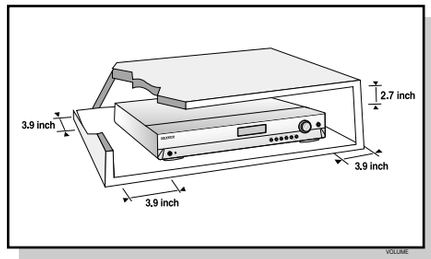
This symbol indicates that dangerous voltage which can cause electric shock is present inside this unit.

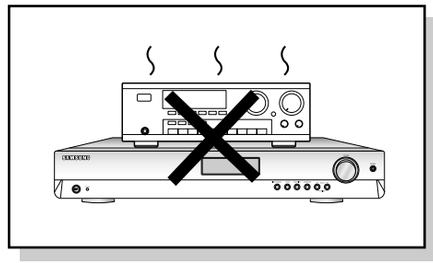
This symbol alerts you to important operating and maintenance instructions accompanying the unit.

WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

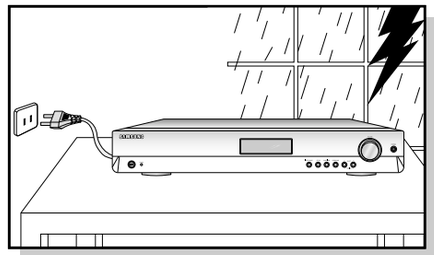
CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Precautions

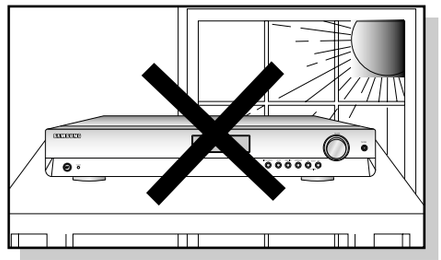




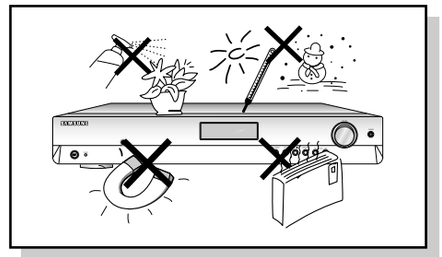
Ensure that the AC power supply in your house complies with the identification sticker located on the back of your player. Install your player horizontally, on a suitable base (furniture), with enough space around it for ventilation (3~4inches). Make sure the ventilation slots are not covered. Do not stack anything on top of the player. Do not place the player on amplifiers or other equipment which may become hot. Before moving the player, ensure the disc tray is empty. This player is designed for continuous use. Switching off the DVD player to the stand-by mode does not disconnect the electrical supply. In order to disconnect the player completely from the power supply, remove the main plug from the wall outlet, especially when left unused for a long period of time.



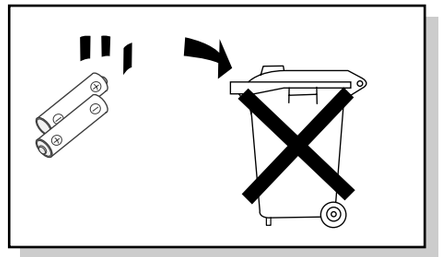
During thunderstorms, disconnect AC main plug from the wall outlet.
Voltage peaks due to lightning could damage the unit.



Do not expose the unit to direct sunlight or other heat sources.
This could lead to overheating and malfunction of the unit.



Protect the player from moisture(i.e. vases) , and excess heat(e.g.fireplace) or equipment creating strong magnetic or electric fields (i.e.speakers...). Disconnect the power cable from the AC supply if the player malfunctions. Your player is not intended for industrial use.
Use of this product is for personal use only.
Condensation may occur if your player or disc have been stored in cold temperatures.
If transporting the player during the winter, wait approximately 2 hours until the unit has reached room temperature before using.



The battery used with this product contain chemicals that are harmful to the environment.
Do not dispose of batteries in the general household trash.

Safety Instructions

READ INSTRUCTIONS
All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS
The safety and operating instructions should be retained for future reference.

HEED WARNINGS
All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS
All operating and use instructions should be followed.

WATER AND MOISTURE
Do not use this video product near water- for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

OVERLOADING
Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

VENTILATION
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video product and to protect it from overheating these openings must not be blocked or covered.
The openings should never be blocked by placing the video product on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register.
This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been followed.

POWER CORD PROTECTION
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

CLEANING
Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

LIGHTNING
For added protection of this video product receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.

OBJECT AND LIQUID ENTRY
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

ACCESSORIES
Do not place this video product on an unstable cart, stand, tripod, bracket, or table.
The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance.
Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.

CART
An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

POWER SOURCES
This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of supply to your home, consult your appliance dealer or local power company.
For video products intended to be operated from battery power, or other sources, refer to the operating instructions.

POWER LINES
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

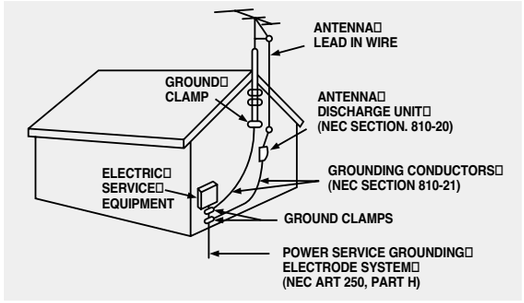
POLARIZATION
This video product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other.) This plug will fit into the power outlet only one way.
This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

OUTDOOR ANTENNA GROUNDING
- If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.
- In the U.S.A section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See the figure below.

ATTACHMENTS
Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

SERVICING
- Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
- Refer all servicing to qualified service personnel.

REPLACEMENT PARTS
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION. 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

SAFETY CHECK
Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

DAMAGE REQUIRING SERVICE
Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
a. When the power-supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the video product.
c. If the video product has been exposed to rain or water
d. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
e. If the video product has been dropped or the cabinet has been damaged.
f. When the video product exhibits a distinct change in performance - this indicates a need for service.

HEAT
This video unit should be situated away from heat sources such as radiators, stoves, or other products (including amplifiers) that produce heat.

Features

Digital AV Receiver

This product is a pure digital AV receiver that performs digital signal processing to minimize signal distortion and loss.

Dolby Pro Logic II

Dolby Pro Logic II is a new form of multi-channel audio signal decoding technology that improves upon existing Dolby Pro Logic.

DTS (Digital Theater Systems)

DTS play backs 5.1 channel sound with less compression than Dolby Digital for richer sound.

SFE(Sound Field Effect) Using 24bit Audio Digital Signal Processing

Provides more realistic surround sound with normal stereo audio sources.

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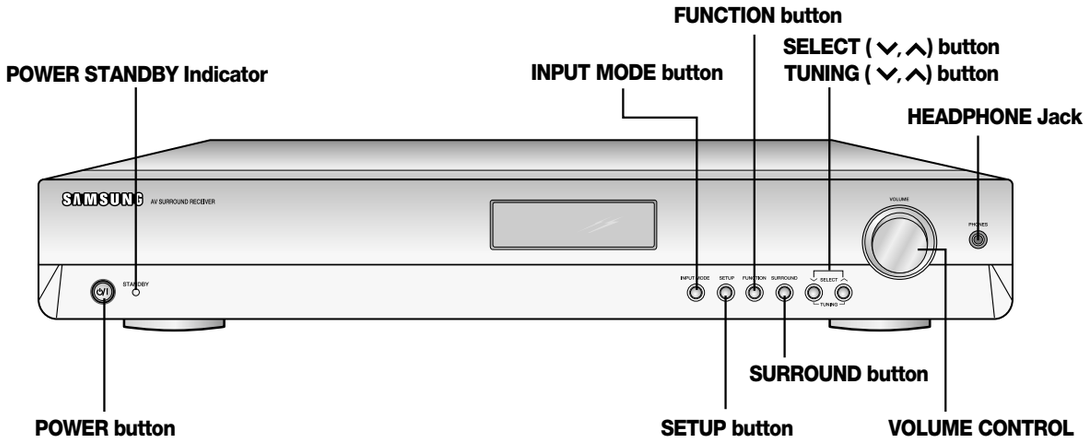
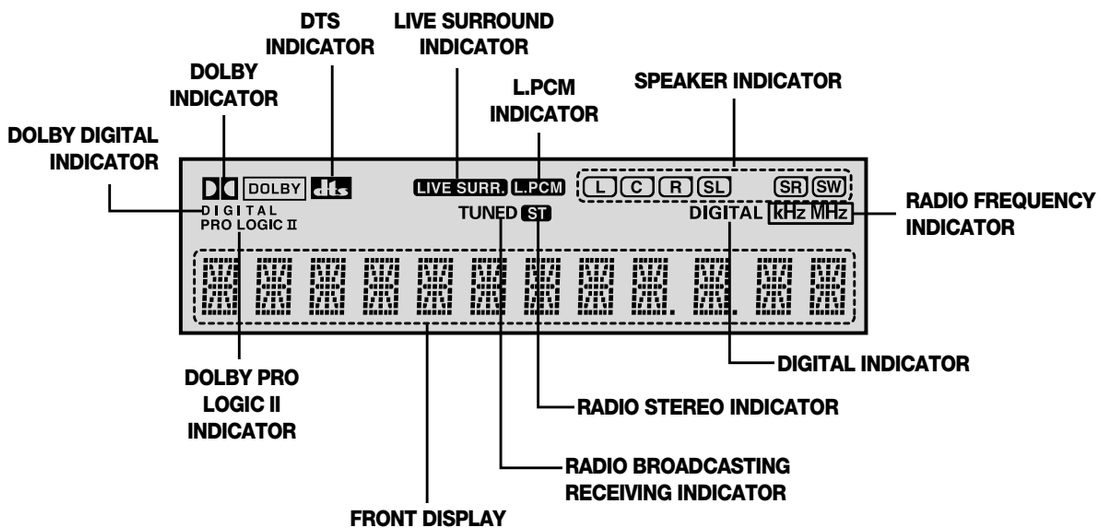
Description

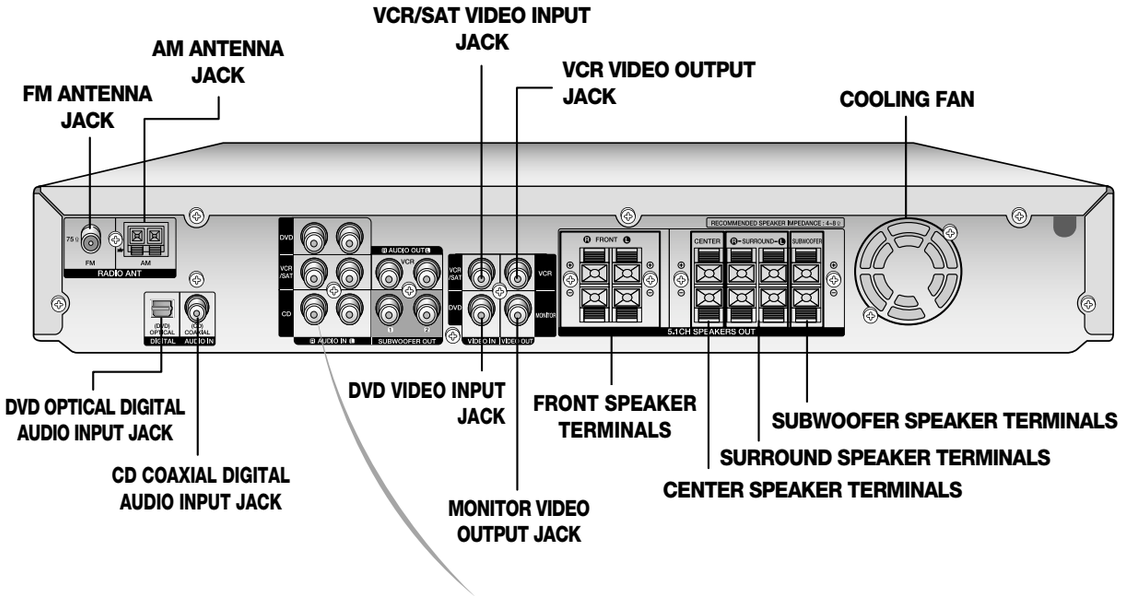
[Front Panel]

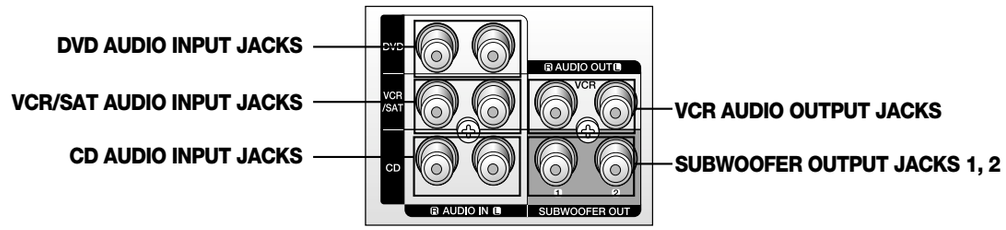


[Display]



[Rear Panel]



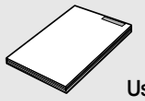


▶▶ Accessories ◀◀

Remote Control
(AH59-01644U)

AM Antenna
(AH42-00019A)

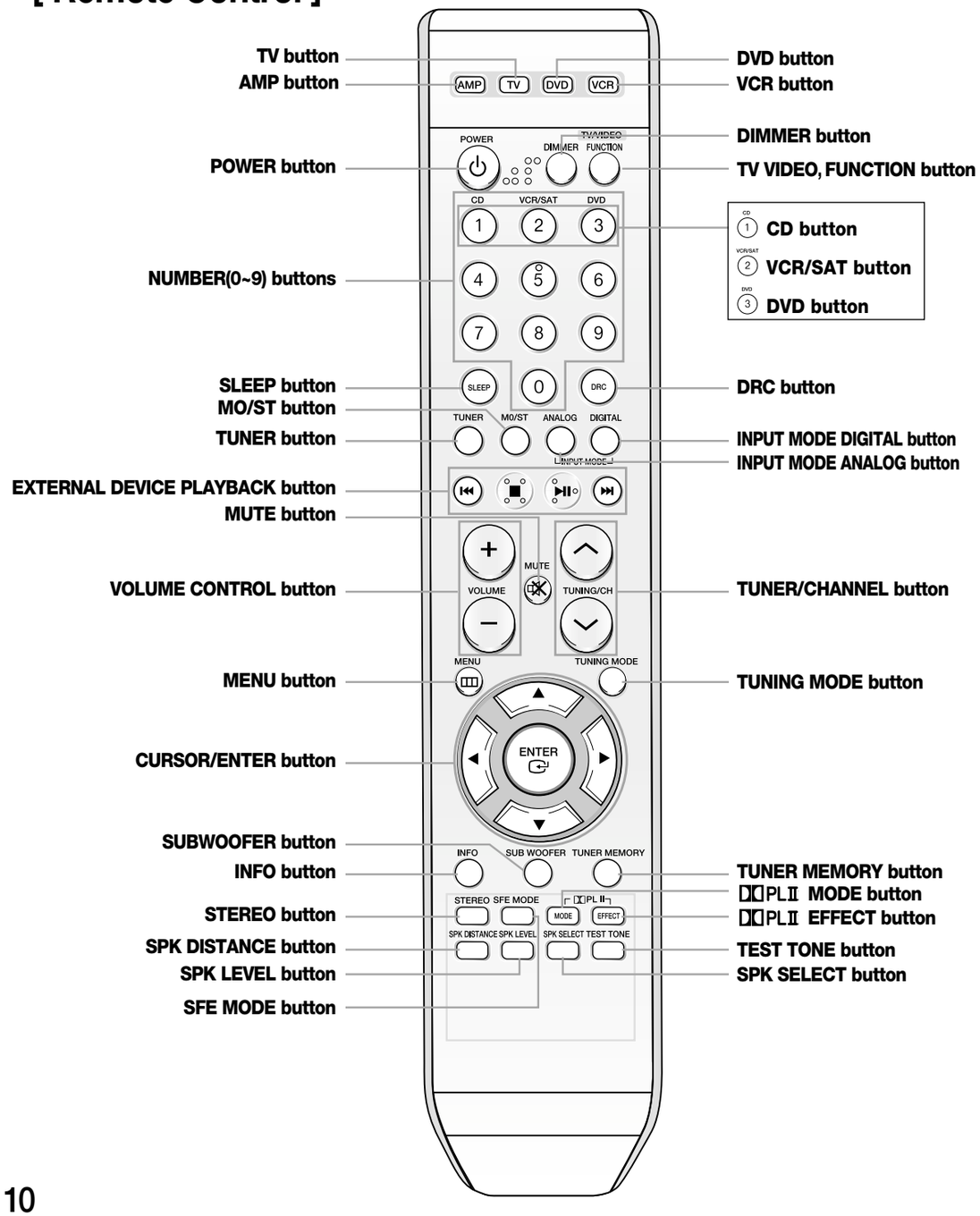
FM Antenna
(AH42-00017A)



User's Manua
(AH68-01853R)

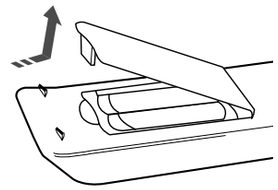
Description

[Remote Control]

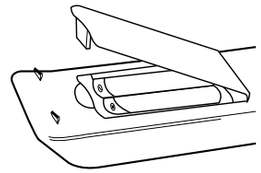


Insert Remote Batteries

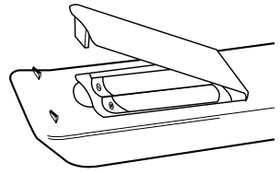
1 Remove the battery cover in the direction of the arrow.



2 Insert two 1.5V AAA batteries, paying attention to the correct polarities (+ and –).



3 Replace the battery cover.



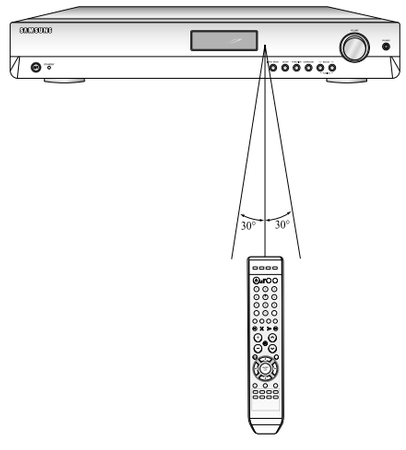
Note

Follow these precautions to avoid leaking or cracking batteries:

- Place batteries in the remote control so they match the polarity:(+) to (+)and (–)to (–).
- Use the correct type of batteries.Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

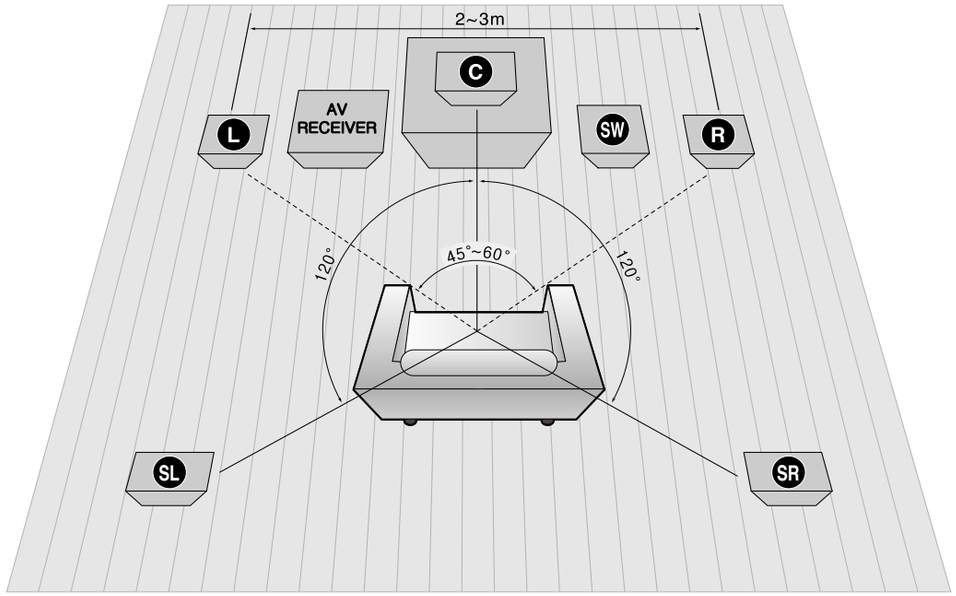
Range of Operation of the Remote Control

The remote control can be used up to approximately 23 feet/7 meters in a straight line. It can also be operated at a horizontal angle of up to 30° from the remote control sensor.



Connecting the Speakers

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.



Position of AV Receiver

- Place AV Receiver on a dedicated stand or rack.

Front Speakers L R

- Place these speakers in front of your listening position, facing inwards (about 45°) toward you.
- Place the speakers so that their tweeters will be at the same height as your ear.
- Align the front face of the front speakers with the front face of the center speaker or place them slightly in front of the center speaker.

Center Speaker C

- It is best to install it at the same height as the front speakers.
- You can also install it directly over or under the TV.

Surround Speakers SL SR

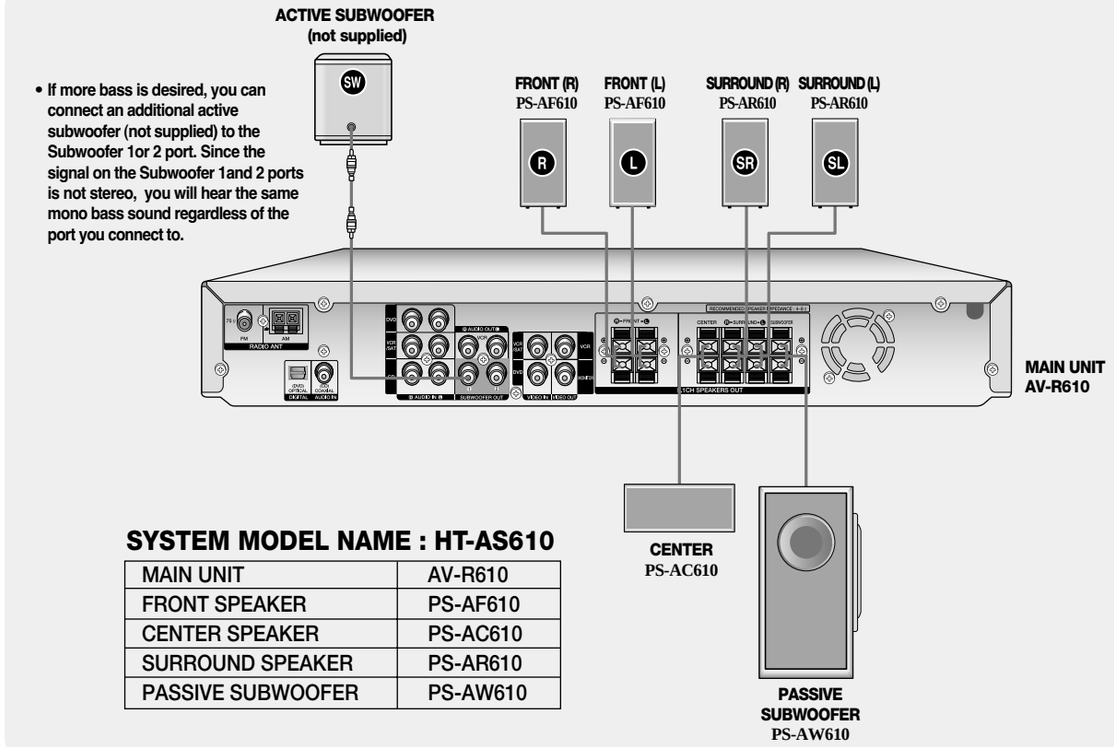
- Place these speakers behind your listening position.
- If there isn't enough room, place these speakers so they face each other.
- Place them about 60 to 90cm (2 to 3feet) above your ear, facing slightly downward.
- ❋ Unlike the front and center speakers, the surround speakers are used to handle mainly sound effects and sound will not come from them all the time.

Subwoofer SW

- The position of the subwoofer is not so critical. Place it anywhere you like.

Note

- When you attach the speakers to a wall, make sure to fasten them tightly so they do not fall off.

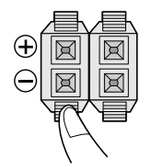


SYSTEM MODEL NAME : HT-AS610

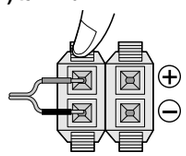
MAIN UNIT	AV-R610
FRONT SPEAKER	PS-AF610
CENTER SPEAKER	PS-AC610
SURROUND SPEAKER	PS-AR610
PASSIVE SUBWOOFER	PS-AW610

▶ Connecting Speaker Wire

1 Press the tab of the speaker connector.



2 Insert the black wire into the black(-) terminal and the gray wire into the red(+) terminal.



Caution

- Keep the subwoofer speaker out of reach of children to prevent them from inserting their hands or objects into the duct (hole) of the subwoofer speaker.

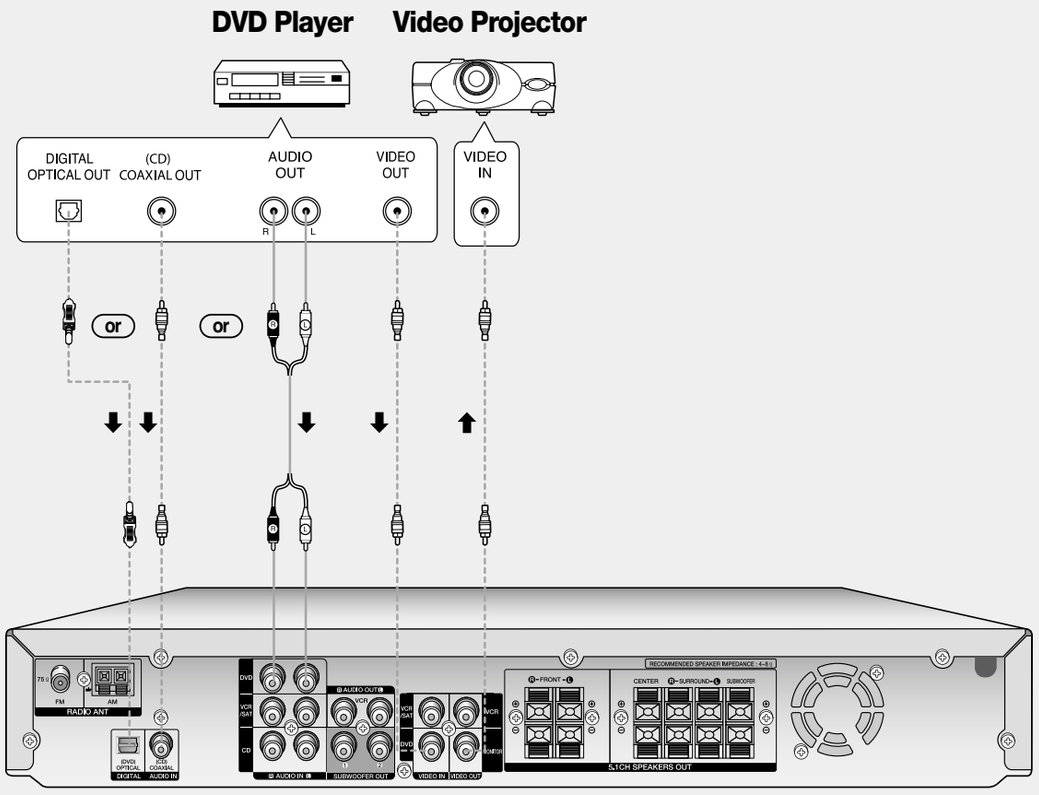
Note

- Never touch speaker terminals while the power is on. Doing so could result in electric shock.
- Make sure the polarities (+ and -) are correct.

Connecting External Components

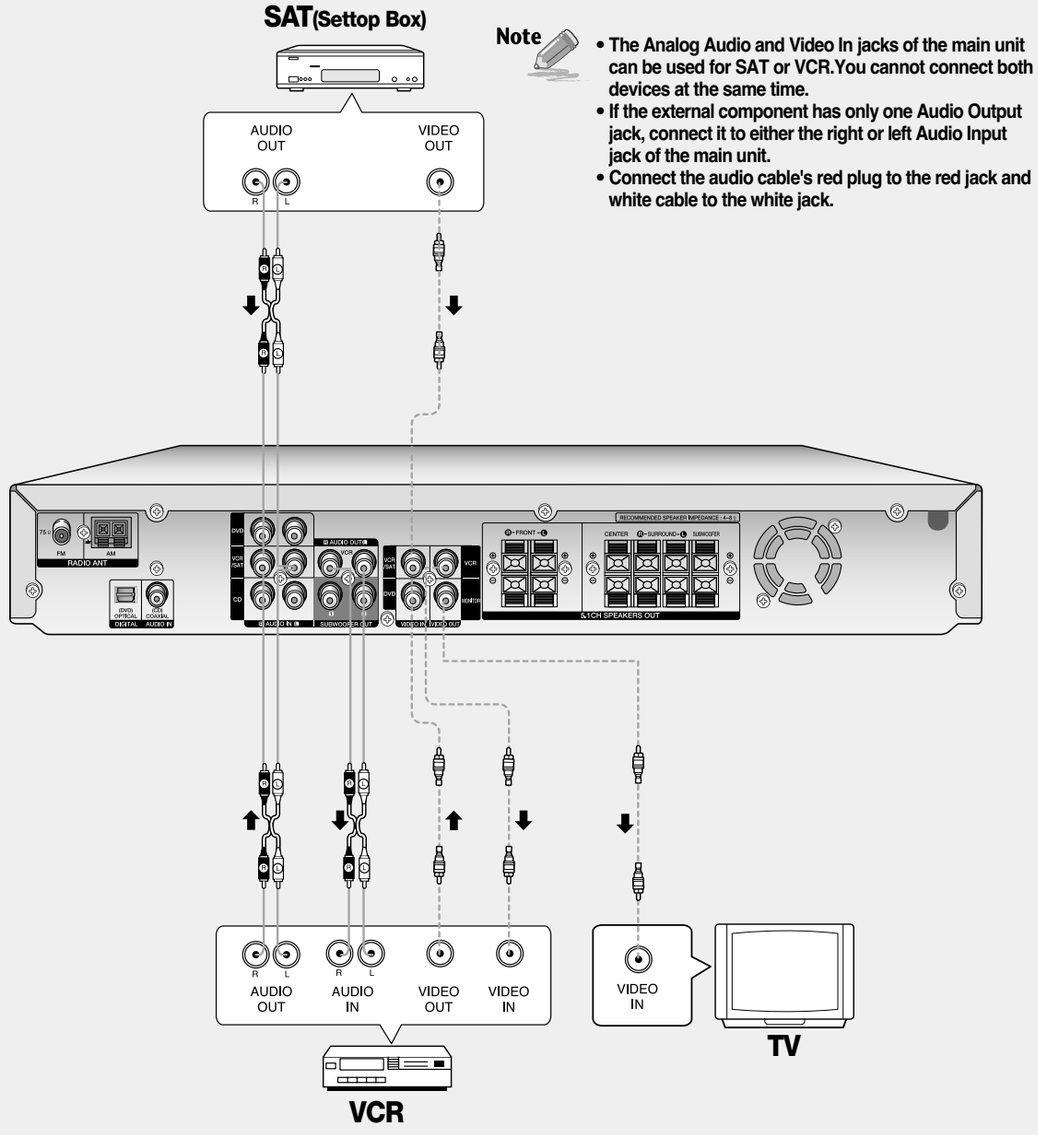
Connecting Video Component

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.



Note

- Disconnect the power plug from the outlet if you will not use this unit for a long period of time.
- Even though the Digital Audio inputs are labelled DVD and CD, you can connect your DVD/CD player to either the OPTICAL or COAXIAL digital audio input (as long as it matches the Digital audio output on your player).



Note

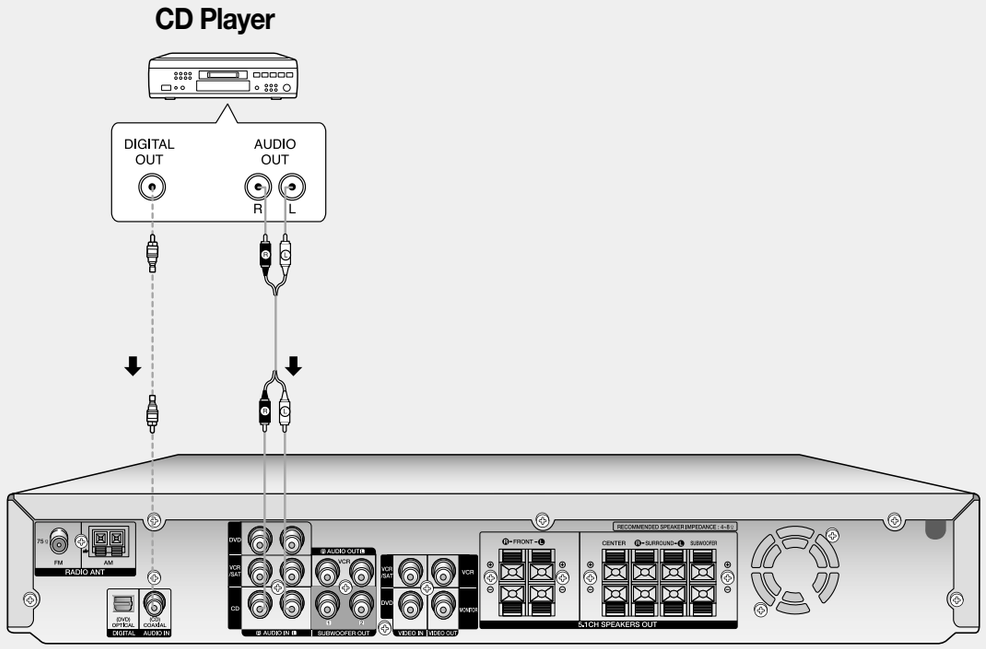
- The Analog Audio and Video In jacks of the main unit can be used for SAT or VCR.You cannot connect both devices at the same time.
- If the external component has only one Audio Output jack, connect it to either the right or left Audio Input jack of the main unit.
- Connect the audio cable's red plug to the red jack and white cable to the white jack.

CONNECTIONS

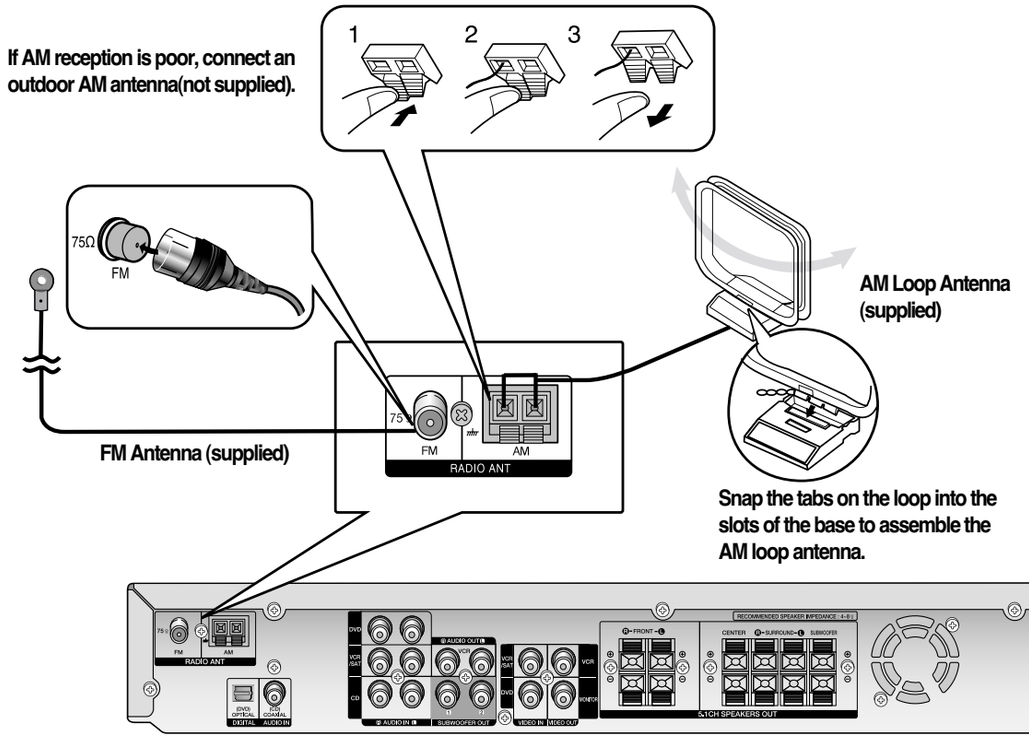
Connecting External Components

Connecting Audio Component

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.



Connecting the FM and AM Antennas


If AM reception is poor, connect an outdoor AM antenna(not supplied).
1
2
3
75Ω
FM
AM Loop Antenna (supplied)
FM Antenna (supplied)
RADIO ANT
Snap the tabs on the loop into the slots of the base to assemble the AM loop antenna.

FM antenna connection

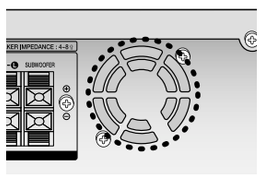
1. Connect the FM antenna supplied to the FM 75ΩCOAXIAL terminal as a temporary measure.
2. Slowly move the antenna wire around until you find a location where reception is good, then fasten it to a wall or other rigid surface.

AM antenna connection

1. Connect the AM loop antenna supplied to the AM and terminals.
2. If reception is poor, connect an outdoor single vinyl-covered wire to the AM terminal. (Keep the AM loop antenna connected).

COOLING FAN

The cooling fan dissipates the heat generated inside the unit so that the unit can be operated normally. The cooling fan is activated automatically to supply cool air to the unit.



Please observe the following cautions for your safety.

- Make sure the unit is well-ventilated. If the unit has poor ventilation, the temperature inside may rise and cause damage to it.
- Do not obstruct the cooling fan or ventilation holes. (If the cooling fan or ventilation holes are covered with a newspaper or cloth, heat may build up inside the unit and fire may result.)

Before Using the AV Receiver

Turning On/Off

REMOTE CONTROL

Press the **POWER** button of the remote control.

- **This unit will be turned on or set to Standby mode.**

MAIN UNIT

1 Connect the power plug to the outlet.

2 Press the **POWER** button of the main unit.

- **This unit will be turned on or set to Standby mode.**

Functions of Dedicated Remote Control

You can operate your AMP(this AV receiver), TV, DVD and VCR with this remote control.
See pages 44-47 for more details.

To Select a Function

REMOTE CONTROL

Method 1

Press the **FUNCTION** button.

- **Each time you press the this button, FM → AM → DVD → VCR/SAT → CD will be selected in turn.**

Method 2

Press CD, VCR/SAT, DVD or TUNER button.

- **You can directly select CD, VCR/SAT, DVD or TUNER.**

MAIN UNIT

Press **FUNCTION** button.

- **Each time you press the this button, FM → AM → DVD → VCR/SAT → CD will be selected in turn.**

Selecting Digital/Analog Input

You can listen to sound in 2 Channel analog or Dolby Digital 5.1 Channel using this unit.

REMOTE CONTROL

For DVD Function

Follow steps 1-4 in DVD setup on page 26 before selecting the DVD Input Mode.

Press the **INPUT MODE DIGITAL** button.

- **DVD OPTICAL or COAXIAL will be selected based on the DVD setup you made on page 26**

Press the **INPUT MODE ANALOG** button.

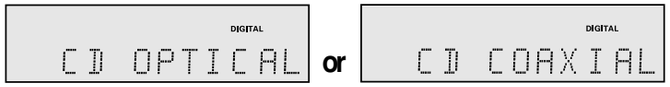
- **DVD ANALOG will be selected.**
- **DVD setup is not required before selecting the DVD Analog mode.**

For CD Function

Follow steps 1-4 in CD setup on page 26 before selecting the CD Input Mode.

Press the **INPUT MODE DIGITAL** button.

- **CD OPTICAL or COAXIAL will be selected based on the CD setup you made on page 26**



Press the **INPUT MODE ANALOG** button.

- **CD ANALOG will be selected.**
- **CD setup is not required before selecting the CD Analog mode.**

Note

- **The product is set to "DVD:OPTICAL,CD:COAXIAL " by factory default.**

MAIN UNIT

For DVD Function

Follow steps 1-4 in DVD setup on page 26 before selecting the DVD Input Mode.

Press the **INPUT MODE** button.

- **DVD OPTICAL or COAXIAL and DVD ANALOG will be selected repetitively.**

For CD Function

Follow steps 1-4 in CD setup on page 26 before selecting the CD Input Mode.

Press the **INPUT MODE** button.

- **CD OPTICAL or COAXIAL and CD ANALOG will be selected repetitively.**

Note

- **You can enjoy Dolby Digital only if you connect the Digital Audio Output jack of an external audio component to the Optical/Coaxial Digital Audio Input jack on the main unit.**

Setting the Speaker Mode

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.
Frequency response from the speaker will be adjusted according to your speaker configuration and whether certain speakers are used or not.

REMOTE CONTROL

1 Press **SPK SELECT** button to select the speaker you want.
- Each time you press this button, F.SPK → C.SPK → S.SPK → SW SPK → CROVR → SPK MODE OFF will be selected in turn.

2 Press ▲▼ button to set the mode (Large, Small etc.) for the selected speaker.

3 Repeat steps 1-2 to set the mode for each speaker.

To Exit Setup Mode

- Wait for about 5 seconds or press the SPK SELECT button of the remote control to select SPK MODE OFF.

To turn the SUBWOOFER On or Off.

Press SUBWOOFER button on the remote.
- Each time you press this button, SW SPK : YES, SW SPK : NO will be selected in turn.

Note
- If F.SPK is set to LARGE, you can select YES or NO for SW SPK.
- If F. SPK is set to SMALL,SW SPK is automatically set to YES. NO cannot be selected.

MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 1 time.
- "SPK SETUP" appears in the display.

3 Press **SURROUND** button to select the speaker you want.
- Each time you press this button, F.SPK → C.SPK → S.SPK → SW SPK → CROVR will be selected in turn.

4 Press **SELECT** (⌄, ⌃) button to set the mode for the selected speaker.

5 Repeat steps 3-4 to adjust each speaker.

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and exits Setup Mode.

Setting the Speaker

SPEAKER	Possible Settings	Default Setting
F.SPK(Front)	LARGE,SMALL	SMALL
C.SPK(Center)	LARGE,SMALL,NONE	SMALL
S.SPK(Surround)	LARGE,SMALL,NONE	SMALL
SW SPK(Subwoofer)	YES,NO	YES
CROVR (Crossover Frequency)	60,80,100,120, 150,180,200(Hz)	150Hz

- **LARGE** : Select when using large speakers. You can listen to full range sound.
- **SMALL** : Select this when using small speakers. Bass below 100Hz will not be output.
- **NONE** : Select this when you use no speaker.
- **YES(Subwoofer)** : Select this when using the Subwoofer Speaker.
- **NO(Subwoofer)** : Select when not using the Subwoofer Speaker.
- **CROVR**: Select the crossover frequency for the best bass response in your room.

Setting the Speaker Listening Distance

REMOTE CONTROL

1 Press the **SPK DISTANCE** button to select the speaker you want.

- Each time you press this button, F.L → CEN → F.R → S.R → S.L → S.W → DIST OFF will be selected in turn.

2 Press ▲▼ button to set the speaker distance.

- For F.L, CEN, F.R, S.W, S.R, S.L Speaker, you can set the distance from the speaker to listening position between 1~30 feet in intervals of 1 foot.

To Exit Setup Mode

- Wait for about 5 seconds or press the SPK DISTANCE button of remote control to select DIST OFF.

Note

- If the listening position is beyond the range of speaker distance setup when you place the speaker, set the speaker distance to the maximum.

MAIN UNIT

1 Press **SETUP** button.

- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 2 times.

- "DIST SETUP" appears on the display.

3 Press **SURROUND** button to select the speaker you want.

- Each time you press this button, F.L → CEN → F.R → S.R → S.L → S.W will be selected in turn.

4 Press **SELECT**(⌄, ⌃) button to set the speaker distance.

- For F.L, CEN, F.R, S.W, S.R, S.L Speaker, you can set the distance from the speaker to listening position between 1~30 feet in intervals of 1 foot.

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and Setup Mode is exited.

Digital Input Setup

You must set the digital input for a DVD or CD player to either Optical or Coaxial depending on which Digital input you have your player connected to.

MAIN UNIT

DVD SETUP

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 3 times.
- "DIGITAL IN" appears on the display.

3 Press **SURROUND** button to select DVD.

4 Press **SELECT**(∨, ∧) button to set the digital input.
- Each time you press this button, OPTICAL ⟷ COAXIAL will be selected in turn.

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and the unit exits Setup Mode.

CD SETUP

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 3 times.
- "DIGITAL IN" appears on the display.

3 Press **SURROUND** button to select CD.

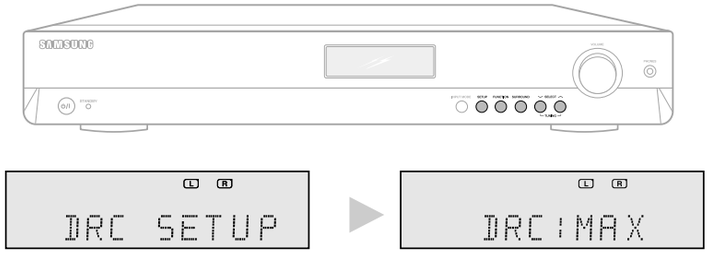
4 Press **SELECT**(∨, ∧) button to set the digital input.
- Each time you press this button, OPTICAL ⟷ COAXIAL will be selected in turn.

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and the unit exits Setup Mode.

Setting DRC (Dynamic Range Compression)

You can use this function to enjoy Dolby Digital sound when watching movies at low volume at night.



REMOTE CONTROL

Press **DRC** button.
- Each time you press this button, DRC : STD → DRC : MAX → DRC : MIN will be selected in turn.

MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 4 times.
- "DRC SETUP" appears on the display.

3 Press **SURROUND** button.
- "DRC : STD" appears on the display .

4 Press **SELECT**(∨, ∧) button to set DRC.
- Each time you press this button, DRC : STD → DRC : MAX → DRC : MIN will be selected in turn.

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and the unit exits Setup Mode.

Setting DRC

- **STD** : Sets DRC effect to standard.
- **MAX** : Sets DRC effect to maximum.
- **MIN** : Sets DRC effect to minimum.

Test Tone

Use test tone to check the speaker connection status or level.

To Automatically Output Test Tone

REMOTE CONTROL

Press **TEST TONE** button.

- Test signal will be automatically output as follows; F.L → CEN → F.R → S.R → S.L → S.W.
- During test tone output, press ▲▼ button to adjust the speaker output level from -10 to +10 dB by 1 step.

To Stop Test Tone

- Press TEST TONE button again.

MAIN UNIT

1. Press **SETUP** button.
   - "SETUP MODE" appears on the display and enters into Setup Mode.
2. Press **FUNCTION** button 5 times.
   - "TEST-T AUTO" appears in the display.
3. Press **SURROUND** button.
   - Test signal will be automatically output as follows; F.L → CEN → F.R → S.R → S.L → S.W .
   - During test signal output, press SELECT (∨, ∧) button to adjust the speaker output level from -10 to +10 dB by 1 step.

To Stop Test Tone

Press **SETUP** button 1 time.

- "SETUP MODE OFF" appears on the display and test tone stops.

To Manually Output Test Tone

MAIN UNIT

1. Press **SETUP** button.
   - "SETUP MODE" appears on the display and the unit enters into Setup Mode.
2. Press **FUNCTION** button 6 times.
   - "TEST-T MANU" appears in the display.
3. Press **SURROUND** button.
   - Each time you press this button, F.L → CEN → F.R → S.R → S.L → S.W will be selected in turn.
4. Press **SELECT**(∨, ∧) button to set the test tone as you want.
   - You can adjust the speaker output level from -10 to +10dB by 1 step.
   - The sound gets quieter at -10dB and louder at +10dB.

To Stop Test Tone

Press **SETUP** button 1 time.

- "SETUP MODE OFF" appears on the display and test signal stops.

Test Tone Output

- **F.L (Front-Left)** : -10 ~ +10dB
- **CEN (Center)** : -10 ~ +10dB
- **F.R (Front-Right)** : -10 ~ +10dB
- **S.R (Surround-Right)** : -10 ~ +10dB
- **S.L (Surround-Left)**: -10 ~ +10dB
- **S.W (Subwoofer)**: -10 ~ +10dB

Setting Speaker Level

You can set the balance and level of speakers

Remote Control

1 Press **SPK LEVEL** button to select the speaker you want.

- Each time you press this button, F.L → CEN → F.R → S.R → S.L → S.W → SPK LVL OFF will be selected in turn.

2 Press ▲▼ button to set the speaker level you want.

- You can adjust it from -10 to +10dB by 1 step.
- The sound gets quieter at -10dB and louder at +10dB.
- Default setting value is 00dB.

To Exit Setup Mode

- Wait for about 5 seconds or press SPK LEVEL button on the remote control to select SPK LVL OFF.

MAIN UNIT

1 Press **SETUP** button.

- "SETUP MODE" appears on the display and enters into Setup Mode.

2 Press **FUNCTION** button 8 times.

- "LEVEL SETUP" appears on the display.

3 Press **SURROUND** button.

- Each time you press this button, F.L → CEN → F.R → S.R → S.L → S.W will be selected in turn.

4 Press **SELECT**(∨, ∧) button to set the speaker level you want.

- You can adjust it from -10 to +10dB by 1 step.
- The sound gets smaller at -10dB and louder at +10dB.
- Default setting value is 00dB

To Exit Setup Mode

- Wait for about 5 seconds or press SETUP button.
  "SETUP MODE OFF" appears on the display and exits Setup Menu.

OPERATION

Setting Speaker Level

- **F.L (Front-Left)** : -10 ~ +10dB
- **CEN (Center)** : -10 ~ +10dB
- **F.R (Front-Right)** : -10 ~ +10dB
- **S.R (Surround-Right)** : -10 ~ +10dB
- **S.L (Surround-Left)**: -10 ~ +10dB
- **S.W (Subwoofer)**: -10 ~ +10dB

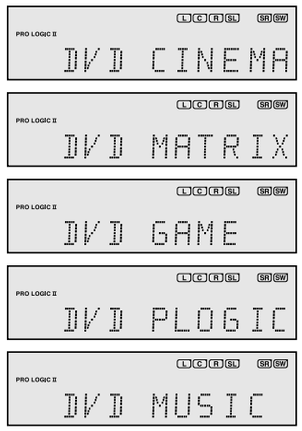
Dolby Pro Logic Ⅱ Mode

This mode provides 5.1 channel sound from 2 channel sources

REMOTE CONTROL

Press **PL II MODE** button.

- **Each time you press this button, CINEMA → MATRIX → GAME → PROLOGIC → MUSIC will be selected in turn.**



To Exit Setup Mode

- **Wait for about 5 seconds.**

MAIN UNIT

1 Press **SURROUND** button to select "DPL Ⅱ" Mode.

- **Each time you press this button, DPL Ⅱ → SFE → STEREO will be selected in turn.**

2 Press **SELECT(∨,∧)** button.

- **Each time you press SELECT (∧) button, CINEMA → MATRIX → GAME → PROLOGIC → MUSIC will be selected in turn.**
- **Each time you press SELECT (∨) button, MUSIC → PROLOGIC → GAME → MATRIX → CINEMA will be selected in turn.**

To Exit Setup Mode

- **Wait for about 5 seconds.**

Dolby Pro Logic Ⅱ Mode

- **MUSIC** : Provides 5.1 Channel Surround sound to digital, analog or existing stereo sources such as CD, TAPE, FM, TV and Stereo VCR.
- **CINEMA** : Adds realism to the movie soundtrack.
- **MATRIX** : You will hear 5.1 Channel Surround sound.
- **GAME** : Enhances the excitement of the game's sound.
- **PROLOGIC** : You will experience a surround effect with just the front left and right speakers.

Note

- **You cannot use Dolby Pro Logic Ⅱ Mode for multi channel signals such as Dolby Digital and DTS.**
- **Pro Logic works only for PCM audio signals with sampling frequencies of 32KHz,44KHz or 48KHz.**

Dolby Pro Logic Ⅱ Effect

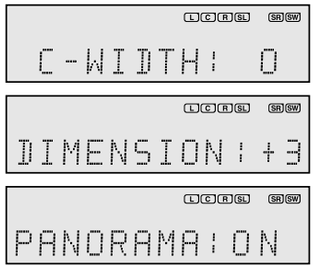
This function works only in Dolby PRO LOGIC II MUSIC Mode.

REMOTE CONTROL

1 Press **PLⅡ MODE** button to select 'MUSIC' Mode.

2 Press **PLⅡ EFFECT** button.

- **Each time you press this button, C-WIDTH → DIMENSION → PANORAMA will be selected in turn.**



3 Press ▲▼ button to select Dolby Pro Logic II effect you want.

- **C-WIDTH: You can set from 0 to 7.**
- **DIMENSION: You can set from -7 to +7.**
- **PANORAMA: You can set it ON or OFF.**

To Exit Setup Mode

- **Wait for about 5 seconds.**

MAIN UNIT

1 Press **SETUP** button.

- **"SETUP MODE" appears on the display and enters into Setup Mode.**

2 Press **FUNCTION** button 10 times.

- **"DPL Ⅱ MODE"appears on the display.**

3 Press **SURROUND** button.

- **Each time you press this button, C-WIDTH → DIMENSION → PANORAMA will be selected in turn.**

4 Press **SELECT**(∨, ∧) button to select Dolby Pro Logic II effect you want.

To Exit Setup Mode

- **Wait for about 5 seconds or press SETUP button.**
  "SETUP MODE OFF" appears on the display and exits Setup Mode.

OPERATION

Dolby Pro Logic Ⅱ Effect

- **C-WIDTH** : This sets the width of the center image. The higher the setting, the less sound comes from the center speaker.
- **DIMENSION** : Incrementally adjusts the sound field (DSP)from the front or rear.
- **PANORAMA** : This mode extends the front stereo image to include the surround speakers for an exciting "wraparound" effect with side wall imaging.

SFE Mode

The SFE (Sound Field Effect) function uses 7 different DSP sound field effects to digitally simulate actual music environments such as concert halls or movie theaters.

REMOTE CONTROL

Press **SFE MODE** button.

- **Each time you press this button,** HALL → THEATER → ARENA → CLUB → DOME → STADIUM → CHURCH **will be selected in turn.**

To Exit Setup Mode

- **Wait for about 5 seconds.**

MAIN UNIT

1 Press **SURROUND** button to select 'SFE' Mode.

- **Each time you press this button, DPL II → SFE → STEREO will be selected in turn.**

2 Press **SELECT**(∨, ∧) button.

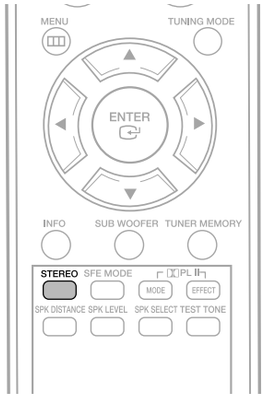
- **Each time you press Select (** ∧ **) button,** HALL → THEATER → ARENA → CLUB → DOME → STADIUM → CHURCH **will be selected in turn**
- **Each time you press Select (** ∨ **) button,** CHURCH → STADIUM → DOME → CLUB → ARENA → THEATER → HALL **will be selected in turn.**

To Exit Setup Mode

- **Wait for about 5 seconds.**

Stereo Mode

You can select this mode when listening to sound through the Front Left and Right speakers and subwoofer.



REMOTE CONTROL

Press **STEREO** button.

- "STEREO" appears in the display and Stereo Mode is selected.

To Exit Setup Mode

- Wait for about 5 seconds.

MAIN UNIT

Press **SURROUND** button to select 'STEREO'.

- Each time you press this button, DPL II → SFE → STEREO will be selected in turn.

To Exit Setup Mode

- Wait for about 5 seconds.

Note

- When PCM and Analog Stereo signals are input, the left and right channels are played back in Stereo Mode.

For Surround Mode and Input Signal

o = active, – = inactive

Surround Mode	Input Signal	Decoding	Output Channel				Display Information	
			L/R	C	SL SR	Sub Woofer	Display Signal Format	Channel Status
DOLBY (MUSIC, CINEMA, MATRIX, GAME, PROLOGIC)	Dolby D Surr. EX	Dolby Digital 5.1	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	Dolby D (5.1ch)	Dolby Digital 5.1	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	Dolby D (2ch)	Pro Logic II	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	Dolby D (2ch Surr)	Pro Logic II	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	L.PCM (Audio)	Pro Logic II	o	o	o	o	L.PCM	L, C, R, SL, SR, SW
	Analog	Pro Logic II	o	o	o	o	ANALOG	L, C, R, SL, SR, SW
DTS	DTS-ES	DTS 5.1	o	o	o	o	DTS	L, C, R, SL, SR, SW
	DTS 96/24	DTS 5.1	o	o	o	o	DTS	L, C, R, SL, SR, SW
	DTS (5.1)	DTS 5.1	o	o	o	o	DTS	L, C, R, SL, SR, SW
	L.PCM (Audio)	Neo:6	o	o	o	-	L.PCM	L, R
SFE	Dolby D (2ch)	DD + SFE	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	Dolby D (2ch Surr)	DD + SFE	o	o	o	o	□□ DIGITAL	L, C, R, SL, SR, SW
	L.PCM (Audio)	SFE	o	o	o	o	L.PCM	L, C, R, SL, SR, SW
	Analog	SFE	o	o	o	o	ANALOG	L, C, R, SL, SR, SW
STEREO	Dolby D (2ch)	DD	o	-	-	-	□□ DIGITAL	L, R, SW
	Dolby D (2ch Surr)	DD	o	-	-	-	□□ DIGITAL	L, R, SW
	L.PCM (Audio)	Stereo	o	-	-	-	L.PCM	L, R, SW
	L.PCM 96KHz	Stereo	o	-	-	-	L.PCM	L, R, SW
	Analog	Stereo	o	-	-	-	ANALOG	L, R, SW

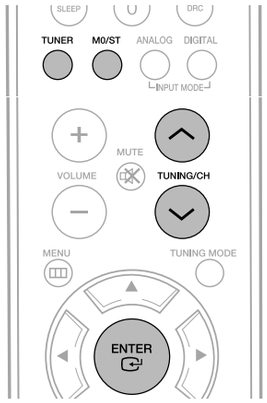
L/R : Front Speaker (Left/Right) C : Center Speaker SL/SR : Rear Speaker (Left/Right) SW : Subwoofer

Note

- Channel status displays are dependent on the speaker configuration.
- SFE Mode works with 2ch signals.

Listening to Radio

You can listen to the chosen band (FM, AM) by using either automatic or manual tuning.



REMOTE CONTROL

1 Press **TUNER** button.

- **Each time you press this button, FM → AM will be repetitively selected.**

2 Select frequency.

- Automatic Tuning 1 :
  1) **Press TUNING MODE button to select PRESET.**
  2) **Press TUNING/CH (∨, ∧) button to select the preset frequency.**
- Automatic Tuning 2 :
  1) **Press TUNING MODE button to select MANUAL.**
  2) **Press and hold TUNING/CH (∨, ∧) button to automatically tune in frequency.**
- Manual Tuning :
  1) **Press TUNING MODE button to select MANUAL.**
  2) **Press TUNING/CH (∨, ∧) button briefly to increase or decrease the frequency step by step.**

MAIN UNIT

1 Press **FUNCTION** button to select FM or AM.

2 Select the frequency.

- Automatic Tuning :
  Press and hold TUNING(∨, ∧) button to automatically tune in frequency.
- Manual Tuning :
  Press TUNING(∨, ∧) button briefly to increase or decrease the frequency step by step.

To Listen to Mono/Stereo

Press MO/ST button on the remote.

- **Each time you press this button, STEREO, MONO will be selected in turn.**
- **If you select MONO in the area with weak reception, it will help to reduce noise.**
- **This function works only with the Remote Control.**

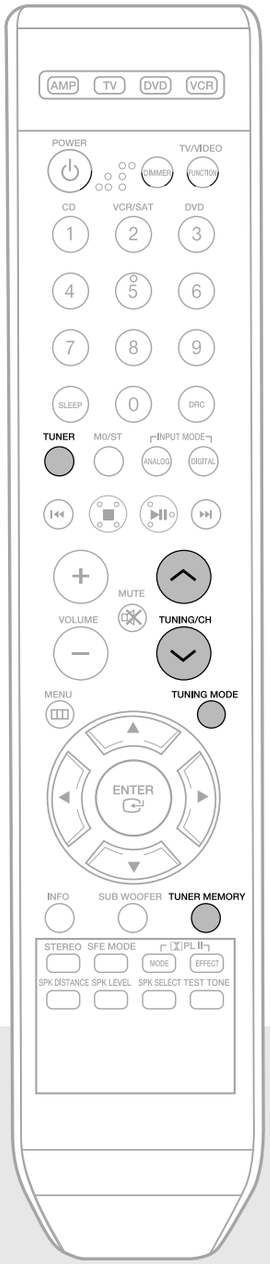
How to select PRESET and MANUAL on the main unit.

1. Press the SETUP button.
2. Press the FUNCTION button 9 times.
- **"TUNER SETUP" appears in the display.**

3. Press the SURROUND button.
4. SELECT (∨, ∧) button to select MANUAL or PRESET.

Presetting Radio Stations

You can preset up to 30 FM and AM stations.



REMOTE CONTROL

Ex) Setting station FM 89.10 in preset 2 .

1 Press **TUNER** button.

- **Each time you press this button, FM → AM will be selected in turn.**

2 Press Select button and then **TUNING MODE** button to select 89.10.

- **Refer to step 2, page 40, to tune in automatically and manually.**

3 Press **TUNER MEMORY** button.

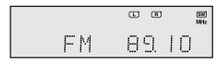
- **Tuner number will blink on the display.**

4 Press **TUNING/CH(∨, ∧)** button to select preset 2.

- **You can select from presets 1 to 30.**

5 Press **TUNER MEMORY** button.

- **Tuner number will disappear and station 89.10 will be saved in preset 2.**



6 To preset other stations, repeat steps 2 to 5.

To Listen to Preset Station

- **Press TUNING MODE button of the remote control to select the PRESET and press TUNING/CH (∨, ∧) button.**

Convenient Functions

Sleep Timer Function

You can set the time that this unit will shut itself off.

REMOTE CONTROL

Press the **SLEEP** button.

• SLEEP : OFF → 15 → 30 → 45 → 60 → 90 → 120MIN will be selected in turn.

To Check Sleep Timer

Press SLEEP button.

• The remaining time before this unit will shut itself off is shown on the display.
• Pressing the button again changes the sleep time from what you set previously.

To Cancel Sleep Timer

• Press SLEEP button until SLEEP : OFF appears on the display.

Mute Function

This function is useful when answering a doorbell or telephone call.

REMOTE CONTROL

Press the **MUTE** button.

• MUTE appears on the display.

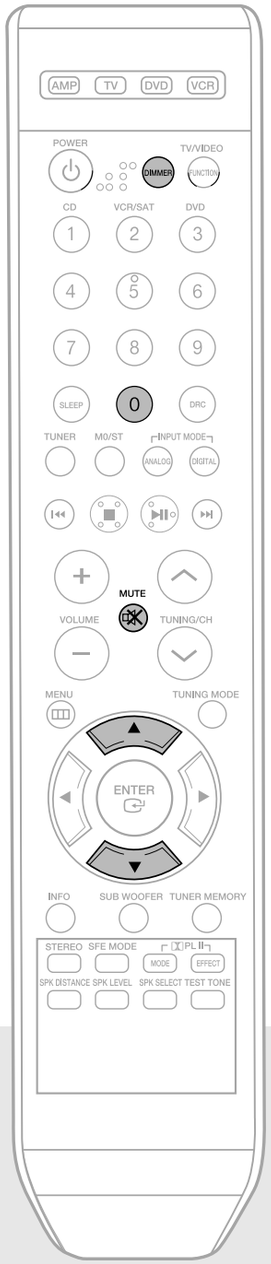
To Output Sound Again

Press MUTE button again.

• MUTE will disappear and sound will output.

Note

• SLEEP, Mute and the Adjust Display function can only be operated with the remote control.



Reset Function

REMOTE CONTROL

1 Press the **MUTE** button.
• MUTE appears on the display.

2 Press "**0**" button five times and then press **ENTER** button.

3 Press ▲▼ buttons to select "YES".
• The unit will turn off after 5 seconds.

Caution

• Using the RESET function will erase all stored settings.
• Do not use this unless necessary.

Adjust the Display

You can adjust the brightness of the display.

REMOTE CONTROL

Press the **DIMMER** button.

• Each time you press this, the brightness of the display will be adjusted.

Using Headphone

Use headphones (not supplied) for private listening pleasure.

Connect the headphone to the headphone jack and listen to music.

Note

• Do not turn the volume up too high when you use headphones as It may damage your hearing.

MISCELLANENOUS

Operating your TV with the Remote Control

1 Press **TV** button to set the remote to TV mode.

2 Press **POWER** button to turn on the TV.

3 Point the remote control toward the TV.

4 While holding down **POWER** button, enter the code corresponding to your brand of TV.

- If the code matches the TV's code, the TV will be turned off.
- If there is more than one code listed for your TV in the table, enter one at a time to determine which code works.

5 If TV is turned on or off when you press the power button of the remote control, the setting is completed.

- You can use the TV POWER, VOLUME, CHANNEL, MENU and Numeric buttons (0~9).

Note

- The remote control may not work on some brands of TVs. Also, some operations may not be possible depending on your brand of TV.
- The remote control will work with Samsung TVs by default.

TV Brand Code List

Brand	Code Number	Brand	Code Number	Brand	Code Number
ADMIRAL(M.WARDS)	056, 057, 058	LUXMAN	018	SYLVANIA	018, 040, 048, 054, 059, 060, 062
A MARK	001, 015	LXI(SEARS)	019, 054, 056, 059, 060, 062, 063, 065, 071	SYMPHONIC	061, 095, 096
ANAM	001, 002, 003, 004,005, 006, 007, 008, 009, 010, 011, 012, 013, 014	MAGNAVOX	015, 017, 018, 048, 054, 059, 060, 062, 072, 089	TATUNG	006
				TECHWOOD	018
AOC	001, 018, 040, 048	MARANTZ	040, 054	TEKNIKA	003, 015, 018, 025
BELL&HOWELL(M.WARDS)	057, 058, 081	MATSUI	054	TMK	018, 040
BROCSONIC	059, 060	MGA	018, 040	TOSHIBA	019, 057, 063, 071, 101 107, 109, 110, 111, 113
CANDLE	018	MITSUBISHI/MGA	018, 040, 054, 059, 060, 075, 101		
CETRONIC	003			VIDTECH	018
CITIZEN	003, 018, 025	MTC	018	VIDECH	059, 060, 069
CINEMA	097	NEC	018, 019, 020, 040, 059, 060	WARDS	015, 017, 018, 040, 048, 054, 060, 064
CLASSIC	003				
CONCERTO	018	NIKEI	003	YAMAHA	018
CONTEC	046	ONKING	003	YORK	040
CORONADO	015	ONWA	003	YUPITERU	003
CRAIG	003, 005, 061, 082, 083, 084	PANASONIC	006, 007, 008, 009, 054, 066, 067, 073, 074	ZENITH	058, 079
				ZONDA	001
CROSLEX	062	PENNEY	018	DONGYANG	003, 054
CROWN	003	PHILCO	003, 015, 017, 018, 048, 054, 059, 062, 069, 090	LOWE	054
CURTIS MATHES	059, 061, 063			FINLUX	054, 109, 114
CXC	003	PHILIPS	015, 017, 018, 040, 048 054, 062, 072, 112, 114, 117, 118	YOKO	054
DAEWOO	002, 003, 004, 015,016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 032, 034, 035, 036, 040, 048, 059, 090, 099, 100			LOEWE OPTA	054, 114
				PHONOLA	054, 112, 114
		PIONEER	063, 066, 080, 091	RADIOLA	054, 112
		PORTLAND	015, 018, 059	SCHNEIDER	054
		PROTON	040	AKAI	103
		QUASAR	006, 066, 067	GRUNDIG	108, 109, 113, 119, 120, 121
DAYTRON	040	RADIO SHACK	017, 048, 056, 060, 061, 075		
DYNASTY	003			BLAUPUNKT	108
EMERSON	003, 015, 040, 046, 059, 061, 064, 082, 083, 084, 085	RCA/PROSCAN	018, 059, 067, 076, 077 078, 092, 093, 094	SIEMENS	108
				CGE	113
		REALISTIC	003, 019	IMPERIAL	113
FISHER	019, 065, 103	SAMPO	040	MIVAR	113
FUNAI	003	SAMSUNG	000, 015, 016, 017, 040, 043, 046, 047, 048, 049, 054, 059, 060, 098	SABA	114
FUTURETECH	003			BANG&OLUFSEN	114
GENERAL ELECTRIC(GE)	006, 040, 056, 059, 066, 067, 068			BRIONVEGA	114
		SANYO	019, 061, 065, 101, 102, 103, 104	FORMENTI	114
HALL MARK	040			METZ	114
HITACHI	015, 018, 050, 059, 069	SCOTT	003, 040, 060, 061	WEGA	114
INKEL	045	SEARS	015, 018, 019	RADIOMARELLI	114
JC PENNY	056, 059, 067, 086	SHARP	015, 057, 064, 101, 105, 106, 115	SINGER	114
JVC	070			SINUDYNE	114
KTV	059, 061, 087, 088	SIGNATURE2000(M.WARDS)	057, 058	TELEFUNKEN	116
KEC	003, 015, 040	SONY	050, 051, 052, 053, 055, 101		
KMC	015				
LG(GOLDSTAR)	001, 015, 016, 017, 037, 038, 039, 040, 041, 042, 043, 044, 054, 086	SOUNDESIGN	003, 040		
		SPECTRICON	001		
		SSS	018		

Operating your DVD (VCR) with Remote Control

1 Press **DVD** button to set the remote to DVD mode.

- If you operate VCR, press VCR button to set the remote to VCR mode.

2 Press **POWER** button to turn on the DVD (VCR).

3 Point the remote control toward the DVD (VCR).

4 While holding down **POWER** button, enter the code corresponding to your brand of DVD (VCR).

- If the code matches the DVD (VCR)'s code, the DVD (VCR) will be turned off.
- If there is more than one code listed for your DVD (VCR) in the table, enter one at a time to determine which code works.

5 If DVD (VCR) is turned on or off when you press the power button of the remote controller, the setting is completed.

- You can use DVD (VCR) POWER, VOLUME, PLAY, PAUSE, STOP, SKIP, MENU and Numeric button (0~9).

Note

- The remote control may not work on some brands of DVD (VCR). Also, some operations may not be possible depending on your brand of DVD (VCR).
- The remote control will work with Samsung DVDs (VCRs) by default.

VCR Brand Code List

Brand	Code Number
ADMIRAL(M.WARDS)	043,106
AWIA	044,045,046
AKAI	088,089,090
ANAM	001,002,003,004,005,033
AOC	091
AUDIO DYNAMIC	019,047,092
BELL & HOWELL(M.WARDS)	048,093
BROKSONIC	092,094,095
CANON	001,033,049,091
CAPEHART	011
CITIZEN	050
CRAIG	050,072,096
CRITERION	051
CURTIS MATHES	001,031,032,033,044,091
DAEWOO	006,007,008,009,010,011,012,013,014,015,016,017,018,046,051,091
DAYTRON	011
DBX	019,047,052,092
EMERSON	025,031,032,044,046,094,095,097,098,099
FISHER	009,048,053,054,055,100
FUNAI	044
GENERAL ELECTRIC(GE)	001,031,032,033,056,091
GO VIDEO	059,060,061
HARMAN KARDON	019
HITACHI	020,021,049,054,062,100
HQ	051
INSTANT REPLAY	001,033,049,091
JCL	001,033
JCP	025
JC PENNY	047,048,052,062,091,092
JVC	001,033,047,052,063,064,065,092
KENWOOD	047,050,052,092
LG(GOLDSTAR)	019,020,021,022,023,024,025,026,027,028,029,030,050
LXI(SEARS)	020,025,044,048,050,053,054,055,062,100
MAGIN	072
MAGNAVOX	001,031,032,033,049,066,067,091
MARANTZ	001,019,033,047,052,092,110
MARTA	025,050
MEI	001,033
MEMOREX	001,025,033,054,091,100
MINOLTA	020,021,062
MITSUBISHI/MGA	068,069,070,101,102
MTC	072
MULTITECH	044,057,069
NEC	019,047,052,057,092
OLYMPIC	049,091
OPTIMUS	101
ORION	103
PANASONIC	001,004,033,049,067,091,107
PENNEY	019,020,072
PENTAX	001,020,021,033,062
PHILCO	001,033,046,049,091,094
PHILIPS	001,030,033,049,050,066,091
PILOT	025
PIONEER	049
PORTLAND	011
QUASAR	001,033,049,067,091,107,108
RICO	036
RCA/PROSCAN	001,020,021,031,032,033,049,051,062,066,070,091,104
REALISTIC	001,009,025,033,044,048,054,091,101,105
SAMSUNG	000,006,031,032,057,058,071,072,073,074,075,076,077,078,079,080,081
SANYO	008,009,046,048,050,054,058,093,100
SANSUI	092
SCOTT	006,051,054,057,069,070,100,101
SEARS	020,021,025
SHARP	043,105,106
SINGER	096
SIGNATURE2000 (M.WARDS)	043,044,054,100,106
SHINTOM	096
SONY	034,035,036,037,038,039,040,041,042,082,083,084,085,086
STS	020
SYLVANIA	001,033,044,049,066,091
SYMPHONIC	044
TANDY	009
TASHIRO	050
TATUNG	047,052,092
TEAC	044,047,052,092
TECHNICS	001,033,049,091
TEKNIKA	001,025,033
TOSHIBA	006,051
TOTEVISION	025,072
TAEKWANG	087
UNITECH	072
VECTOR RESEARCH	019
VIDEO CONCEPTS	019
VIDEOSONIC	072
WARDS	001,020,031,032,033,043,050,054,072,100,105,106,109
YAMAHA	019,047,048,052,092,
ZENITH	019,047,048,052,092

DVD Brand Code List

Brand	Code Number
DENON	003,032
DOONOON	019
DMTECH	017
FISHER	002
GE	006
HARMAN/KARDON	012
JVC	010,013
KENWOOD	008
LG	001
MAGNAVOX	004
MITSUBISHI	005,016
ONKYO	004,014
OPTIMUS	011
PANASONIC	021
PROSCAN	006
PHILIPS	004,023
PIONEER	007,011,022,025
RCA	006
SAMSUNG	000,027
SANYO	002
SONY	015, 020
THETA DIGITAL	011
TOSHIBA	004, 018
YAMAHA	009, 033
ZENITH	004, 024
TAEGWANG	026
PS2	028
X-BOX	029
APEX	030
MARANTZ	031

Before Calling for Service

Symptom	Check	Remedy
Can't turn it on.	• Is the power code plugged into the outlet?	• Connect the power plug to the outlet.
It does not work when the button is pressed.	• Is there static electricity in the air?	• Disconnect the power plug and connect it again.
Sound is not produced.	• Are the speakers and external components connected properly? • Is the Mute function on? • Is the volume set to minimum? • Is the speaker setup set incorrectly to NONE?	• Properly connect them. • Press Mute button to cancel the function. • Adjust the volume. • Refer to pages 22~23 to select LARGE, SMALL or YES.
Picture does not appear when the function is selected.	• Is the external component connected properly?	• Properly connect it.
Remote controller does not work.	• Are the batteries drained? • Is the distance between remote control and main unit proper?	• Replace with new batteries. • Operate at close distance.
The sound from each device is changed during stereo playback.	• Are the left/right speaker or left/right input/output cables connected properly?	• Check the left/right channel and properly connect it.
Can't receive radio broadcasts.	• Is AM or FM antenna connected properly?	• Properly connect the antenna. • If the input strength of antenna connector is weak, install the FM antenna in a place with good reception.
There is no sound from surround speakers.	• Is the surround speaker connected properly? • Is S.SPK (Surround) incorrectly set to NONE in Speaker Setup? • Is Surround Mode selected to Stereo?	• Refer to pages 12~13 to connect it properly. • Refer to pages 22~23 to select LARGE or SMALL. • Refer to pages 32~39 to select other Surround Mode.
There is no sound from center speaker	• Is the center speaker connected properly? • Is C.SPK (Center) incorrectly set to NONE in Speaker Setup? • Is the Surround Mode selected to Stereo?	• Refer to pages 12~13 to connect it properly. • Refer to pages 22~23 to select LARGE or SMALL. • Refer to pages 33~39to select other Surround Modes.

Symptom	Check	Remedy
Can't select Dolby Pro Logic II Mode.	• Is the input signal selected properly?	• Select 2 channel Dolby Digital, PCM, and Analog input signal.
There is no sound when playing a DTS encoded DVD.	• Is Digital input selected?	• Check whether digital external component is properly connected and refer to page 26 to select the digital input.

Product Protection Function

Heat Protection

• The Protection function will come on if the main unit or power transformer overheats.
"PROTECTION" will appear in the display .

This function will come on:
- If speaker terminal is shorted
- If speaker cable is shorted

If there is no problem when you turn the unit on again after turning it off, “PROTECTION” will disappear from the display and the unit will work properly.

Note

• If PROTECTION appears on the display, check whether the speaker terminal is shorted and then turn on the unit

Specifications

GENERAL	Power Supply	120V, 60 Hz
	Standby Power Consumption	0.9W
	Power Consumption	95W
	Weight	9.25lbs
	Dimensions (W x H x D)	16.9 x 2.6 x 13.7 inches
	Operating Temperature Range	41°F ~ 95°F
	Operating Humidity Range	10%~75%
FM TUNER	Frequency Response	87.5~108.0MHz
	Usable Sensitivity	12dBf
	S/N Ratio	MONO/STEREO 55/55dB
	Distortion	MONO/STEREO 0.3/0.8%
	Stereo Separation	30dB
	Tuner Output Level	1KHz, 75KHz Dev
AM TUNER	Frequency Response	520~1720KHz
	S/N Ratio	40dB
	Usable Sensitivity	60dBμV/m(Loop Antenna)
	Distortion	2% (MOD:80%)
AMPLIFIER	Rated Output	20Hz~20KHz/THD = 10%
	Front Speaker(Left+Right)	4 Ω 100W/CH
	Center Speaker	4 Ω 100W/CH
	Surround Speaker(Left+Right)	4 Ω 100W/CH
	Subwoofer	4 Ω 100W/CH
	Input Sensitivity/Impedance	450mV/47kΩ
	S/N Ratio(Analog Input)	80dB
	Separation(1KHz)	60dB
FREQUENCY RESPONSE	Analog Input	20Hz~20KHz(±3dB)
	Digital Input/96KHz PCM	20Hz ~44KHz(±3dB)
VIDEO OUTPUT	TV Format	NTSC/PAL
	Input Level/Impedance	1Vp-p/75 Ω
	Output Level/Impedance	1Vp-p/75 Ω
	Video Frequency Response	5Hz to 10KHz(-3dB)
	Component Video Frequency Response	5Hz to 40KHz(-3dB)
	S/N Ratio	60dB

SPEAKERS	Speaker system	Front / Surround	Center	Subwoofer speaker
	Impedance	4Ω x 4	4Ω	4Ω
	Rated input	100W	100W	100W
	Maximum input	200W	200W	200W
	Dimensions (W x H x D)	3.5 x 6.0 x 3.5 inches	7.9 x 3.5 x 3.6 inches	6.9 x 12.6 x 15.0 inches
	Weight	1.3 lbs/1.1lbs	1.4 lbs	11.5 lbs

※ S/N ratio, distortion, separation and usable sensitivity are based on measurement using AES (Audio Engineering Society) guidelines.

SAMSUNG Home Theater

LIMITED WARRANTY TO ORIGINAL PURCHASER

This SAMSUNG brand product, as supplied and distributed by Samsung Electronics America, Inc. (SAMSUNG) and delivered new, in the original carton to the original consumer purchaser, is warranted by SAMSUNG against manufacturing defects in materials and workmanship for a limited warranty period of:

One (1) Year Parts and Labor*
(*90 Days Parts and Labor for Commercial Use)

This limited warranty begins on the original date of purchase, and is valid only on products purchased and used in the United States. To receive warranty service, the purchaser must contact SAMSUNG for problem determination and service procedures. Warranty service can only be performed by a SAMSUNG authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to SAMSUNG or SAMSUNG's authorized service center. Transportation of the product to and from the service center is the responsibility of the purchaser.

SAMSUNG will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of SAMSUNG and must be returned to SAMSUNG. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer.

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